

**AMENDMENTS TO THE CLAIMS**

Claim 1 (currently amended) A method of calibrating modeling equations with measurement data comprising the steps of:

representing the measurement data in a predetermined data structure format;

associating the measurement data with related information within the predetermined data structure format;

calibrating a modeling equation using a ~~default calibration scheme~~ modified Newton second order gradient search algorithm with the measurement data and the related information;

calculating a judging factor to determine the acceptability of the calibrated modeling equation;

comparing the judging factor to a standard to determine whether the calibrated modeling equation is acceptable;

determining an adjustment direction to minimize the difference between the judging factor and the standard;

adjusting the calibrated modeling equation using the adjustment direction;

recalculating the judging factor, recomparing the judging factor with the standard, redetermining the adjustment direction and readjusting the calibrated model equation until the calibrated modeling equation is acceptable.

Claim 2 (original) The method of claim 1, wherein the predetermined data structure format is a matrix.

Claim 3 (original) The method of claim 2, wherein the measurement data is associated with the related information by being in the same row of the matrix.

Claim 4 (cancelled).

Claim 5 (original) The method of claim 1, wherein the modeling equation is used for determining radio propagation.

Claims 6 and 7 (cancelled).

Claims 8 (currently amended) [[A]] The method of claim 1, further comprising a step of deleting portions of the measurement data and related information used in calibrating the modeling equation.

Claim 9 (original) The method of claim 1, further comprising a step of selecting a modeling equation from a list of possible equations.

Claim 10 (original) The method of claim 1, further comprising a step of inputting a modeling equation to be used in determining the calibrated modeling equation.

Claim 11 (original) The method of claim 1, further comprising:  
calibrating the modeling equation using a secondary calibration technique.

Claim 12 (original) The method of claim 11, wherein the secondary calibration technique is a pseudo-exhaustive technique.

Claim 13 (original) The method of claim 1, wherein the standard is modified during the time the calibrated modeling equation is determined.

Claim 14 (original) The method of claim 1, wherein the size of the adjustment of the calibrated equation using the adjustment direction is dependent on the difference between the judging factor and the standard.

Claim 15 (currently amended) A method of calibrating ~~radio~~ modeling equations with measurement data comprising the steps of:

representing the measurement data in a predetermined data structure format;

associating the measurement data with related information within the predetermined data structure format;

calibrating a modeling equation using a default calibration scheme with the measurement data and the related information;

calculating a judging factor to determine the acceptability of the calibrated modeling equation;

comparing the judging factor to a standard to determine whether the calibrated modeling equation is acceptable;

determining an adjustment direction to minimize the difference between the judging factor and the standard;

adjusting the calibrated modeling equation using the adjustment direction;

recalculating the judging factor, recombining the judging factor with the standard, redetermining the adjustment direction and readjusting the calibrated model equation until the calibrated modeling equation is acceptable; and

deleting portions of the measurement data and related information used in calibrating the modeling equation.

Claim 16 (original). The method of claim 15, wherein the predetermined data structure format is a matrix.

Claim 17 (original) The method of claim 16, wherein the measurement data is associated with the related information by being in the same row of the matrix.

Claim 18 (original) The method of claim 15 wherein the default calibration scheme is a modified Newton second order gradient search algorithm

Claim 19 (original) The method of claim 15, wherein the modeling equation is used for determining radio propagation.

Claims 20 and 21 (cancelled)

Claim 22 (new)      A method of calibrating modeling equations with measurement data comprising the steps of:

representing the measurement data in a predetermined data structure format;

associating the measurement data with related information within the predetermined data structure format;

calibrating a modeling equation using a pseudo-exhaustive technique with the measurement data and the related information;

calculating a judging factor to determine the acceptability of the calibrated modeling equation;

comparing the judging factor to a standard to determine whether the calibrated modeling equation is acceptable;

determining an adjustment direction to minimize the difference between the judging factor and the standard;

adjusting the calibrated modeling equation using the adjustment direction;

recalculating the judging factor, re-comparing the judging factor with the standard, re-determining the adjustment direction and readjusting the calibrated model equation until the calibrated modeling equation is acceptable.

Claim 23 (new)      The method of claim 22, wherein the predetermined data structure format is a matrix.

Claim 24 (new)      The method of claim 23, wherein the measurement data is associated with the related information by being in the same row of the matrix.

Claim 25 (new)      The method of claim 22, wherein the modeling equation is used for determining radio propagation.

Claims 26 (new)      The method of claim 22, further comprising a step of deleting portions of the measurement data and related information used in calibrating the modeling equation.

Claim 27 (new)      The method of claim 22, further comprising a step of selecting a modeling equation from a list of possible equations.

Claim 28 (new)      The method of claim 22, further comprising a step of inputting a modeling equation to be used in determining the calibrated modeling equation.

Claim 29 (new)      The method of claim 22, wherein the standard is modified during the time the calibrated modeling equation is determined.

Claim 30 (new)      The method of claim 22, wherein the size of the adjustment of the calibrated equation using the adjustment direction is dependent on the difference between the judging factor and the standard.